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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,197	06/07/2001	Joon-Young Yang	8733.132.20	8761

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EXAMINER

RAO, SHRINIVAS H

ART UNIT PAPER NUMBER

2814

DATE MAILED: 01/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/875,197		JOON-YOUNG YANG	
	Examiner		Art Unit	
	Steven H. Rao		2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/286,564.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Priority

Receipt is acknowledged of paper submitted under 35 U.S.C. Section No. 119(a)-(d), claiming priority from Korean Patent Application No. 98-12205 filed On April 4, 1998 and under U.S. Serial No. 09/286,564 Filed April 05, 1999 (now U.S. Patent No. 6,281,055) which papers have been placed of record in the file.

Continued Prosecution Application

The request filed on June 06, 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/286,564 is acceptable and a CPA has been established. An action on the CPA follows.

Information Disclosure Statement

Acknowledgment is made of receipt of Applicant's Information Disclosure Statement (PTO-1449) filed June 07, 2001.

The references on PTO 1499 submitted on June 07, 2001 are acknowledged. All the cited references have been considered.

All the cited references have been considered and PTO 1449 initialed and the contract employees have been instructed to mail a copy of the initialed PTO-1449 to the applicants along with the Office Action.

Drawings

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The drawings in this application are objected to by the Draftsperson as informal. Any drawing corrections requested, but not made in the prior application should be repeated in this application if such changes are still desired. If the drawings were changed and approved during the prosecution of the prior application, a petition may be filed under 37 CFR 1.182 requesting the transfer of such drawings, provided the parent application has been abandoned. However, a copy of the drawings as originally filed must be included in the 37 CFR 1.60 application papers to indicate the original content.

Specification

The disclosure is objected to because of the following informalities :

Applicants' in their deceleration state that the instant application is a continuation of previously filed U.S. application. Therefore, Applicants' must include in the first line of the specification a statement to that effect and further indicate weather the parent case had matured to a U.S. Patent.

Appropriate correction is required.

Claims are examined by examiner as best to understood.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis

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added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-20 rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of prior U.S. Patent No. 6,281,055.

This is a double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (U.S. Patent No. 5,897,346, herein after Yamaguchi).

With respect to claim 1 , Yamaguchi teaches a method of fabricating a TFT including the steps of :

Forming a gate insulating layer (Yamaguchi fig. 1 B # 13 , col. 8 line 2) on an active layer (Yamaguchi fig. 1 B # 12, col. 7 line 67), forming a gate (Yamaguchi fig. 1 C # 14, col. 8 line 7) on gate insulating layer , forming an excited region in the exposed part of the active layer through H implantation using the gate as a mask. (Yamaguchi Fig. 1 A, Yamaguchi discloses the use of the active layer as a mask and implanting prior to the formation of the gate, However it would be an obvious altering of the sequence of steps to implant the H after gate formation. Further as Applicants' claims use the terminology " comprising" the claim includes steps in any sequence. Further it is also well known to use the gate as mask during subsequent implantation steps.

With respect to claim 2 , Yamaguchi teaches a method of fabricating a TFT including the steps of :

Wherein the gate insulating layer is formed of silicon dioxide or silicon nitride (Yamaguchi col. 8 line 2).

With respect to claims 3-7 , Yamaguchi teaches a method of fabricating a TFT including the steps of :

Wherein the active layer is formed by undoped polysilicon (cl. 3) (Yamaguchi col.7 line 50) of 400-800 angstroms thick (cl.4) (Yamaguchi col. 7 line 47), using CVD (cl.5) (Yamaguchi col. 7 line 48), and by depositing amorphous silicon and laser annealing (Yamaguchi col. 7 lines 46-51) .

With respect to claim 8 , Yamaguchi teaches a method of fabricating a TFT including the steps of :

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Wherein the gate insulating layer is 500-1500 angstroms and the gate 1500-2500 angstroms. (Yamaguchi col.8 line 2 and line 5).

With respect to claims 9-14 , Yamaguchi teaches a method of fabricating a TFT including the steps of :

Wherein the H is implanted at 50-150 KeV (Cl. 9) at a dose of 5×10^{14} - 5×10^{16} , (Cl. 10) at a temp of 200-300 degrees Celsius(cls. 11 and 12). (Yamaguchi col.9 line 15 and line 54) to simultaneously form impurity (Cl. 13)(inherent when a dopant is implanted to form an impurity region) and implantation time proportionately related to the active layer size (cl.14) (inherent because the bigger the area the longer it will take).

With respect to claim 15, Yamaguchi teaches a method of fabricating a TFT including the steps of :

Forming source and drain by implanting impurities (See claim 1, Also Yamaguchi figs. 2C and D , col. 9 line 40)., activating the source and drain region by maintaining mobility and excitation (yamaguchi col. 9 line 39 heating which inherently produce the mobility and excitation).

With respect to claims 16-18, Yamaguchi teaches a method of fabricating a TFT including the steps of :

Wherein the impurities are n-type or p-type (Yamaguchi col. 8 line 18-20) and self activated due to excitation (it is again inherent that existed impurities will be self-activated).

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With respect to claims 19-20, Yamaguchi teaches a method of fabricating a TFT including the steps of :


They repeat the steps of claims 1-3 .

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H. Rao whose telephone number is 703-306-5945. The examiner can normally be reached on M-F, 8.00 to 5.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 703- 306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703- 308-0956.


Steven H Rao
January 9, 2002


Olik Chaudhuri
Supervisory Patent Examiner
Technology Center 2800